SEQUENCE LISTING

<110> INCYTE GENOMICS, INC.
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HILLMAN, Jennifer L.
BANDMAN, Olga
YUE, Henry
BAUGHN, Mariah R.
LAL, Preeti
LU, Dyung Aina M.
SHAH, Purvi
AZIMZAI, Yalda

<120> HUMAN SYNTHETASES

<130> PF-0721 PCT

<140> To Be Assigned
<141> Herewith

<150> 60/144,992; 60,168,858
<151> 1999-07-22; 1999-12-02

<160> 30
<170> PERL Program

<210> 1
<211> 1176
<212> PRT
<213> Homo sapiens

<220>
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<223> Incyte ID No: 1806212CD1

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Ile Glu Lys Glu Ile Gln Gln Lys Trp Asp Thr Glu Arg Val Phe
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Glu Val Asn Ala Ser Asn Leu Glu Lys Gln Thr Ser Lys Gly Lys
             35                  40                  45
Tyr Phe Val Thr Phe Pro Tyr Pro Tyr Met Asn Gly Arg Leu His
             50                  55                  60
Leu Gly His Thr Phe Ser Leu Ser Lys Cys Glu Phe Ala Val Gly
             65                  70                  75
Tyr Gln Arg Leu Lys Gly Lys Cys Cys Leu Phe Pro Phe Gly Leu
             80                  85                  90
His Cys Thr Gly Met Pro Ile Lys Ala Cys Ala Asp Lys Leu Lys
             95                 100                 105
Arg Glu Ile Glu Leu Tyr Gly Cys Pro Pro Asp Phe Pro Asp Glu
            110                 115                 120
Glu Glu Glu Glu Glu Glu Thr Ser Val Lys Thr Glu Asp Ile Ile
            125                 130                 135
Ile Lys Asp Lys Ala Lys Gly Lys Lys Ser Lys Ala Ala Ala Lys
            140                 145                 150
Ala Gly Ser Ser Lys Tyr Gln Trp Gly Ile Met Lys Ser Leu Gly
            155                 160                 165
Leu Ser Asp Glu Glu Ile Val Lys Phe Ser Glu Ala Glu His Trp
            170                 175                 180
Leu Asp Tyr Phe Pro Pro Leu Ala Ile Gln Asp Leu Lys Arg Met
            185                 190                 195
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Gly Leu Lys Val Asp Trp Arg Arg Ser Phe Ile Thr Thr Asp Val
                200                 205                 210
Asn Pro Tyr Tyr Asp Ser Phe Val Arg Trp Gln Phe Leu Thr Leu
                215                 220                 225
Arg Glu Arg Asn Lys Ile Lys Phe Gly Lys Arg Tyr Thr Ile Tyr
                230                 235                 240
Ser Pro Lys Asp Gly Gln Pro Cys Met Asp His Asp Arg Gln Thr
                245                 250                 255
Gly Glu Gly Val Gly Pro Gln Glu Tyr Thr Leu Leu Lys Leu Lys
                260                 265                 270
Val Leu Glu Pro Tyr Pro Ser Lys Leu Ser Gly Leu Lys Gly Lys
                275                 280                 285
Asn Ile Phe Leu Val Ala Ala Thr Leu Arg Pro Glu Thr Met Phe
                290                 295                 300
Gly Gln Thr Asn Cys Trp Val Arg Pro Asp Met Lys Tyr Ile Gly
                305                 310                 315
Phe Glu Thr Val Asn Gly Asp Ile Phe Ile Cys Thr Gln Lys Ala
                320                 325                 330
Ala Arg Asn Met Ser Tyr Gln Gly Phe Thr Lys Asp Asn Gly Val
                335                 340                 345
Val Pro Val Val Lys Glu Leu Met Gly Glu Glu Ile Leu Gly Ala
                350                 355                 360
Ser Leu Ser Ala Pro Leu Thr Ser Tyr Lys Val Ile Tyr Val Leu
                365                 370                 375
Pro Met Leu Thr Ile Lys Glu Asp Lys Gly Thr Gly Val Val Thr
                380                 385                 390
Ser Val Pro Ser Asp Ser Pro Asp Asp Ile Ala Ala Leu Arg Asp
                395                 400                 405
Leu Lys Lys Lys Gln Ala Leu Arg Ala Lys Tyr Gly Ile Arg Asp
                410                 415                 420
Asp Met Val Leu Pro Phe Glu Pro Val Pro Val Ile Glu Ile Pro
                425                 430                 435
Gly Phe Gly Asn Leu Ser Ala Val Thr Ile Cys Asp Glu Leu Lys
                440                 445                 450
Ile Gln Ser Gln Asn Asp Arg Glu Lys Leu Ala Glu Ala Lys Glu
                455                 460                 465
Lys Ile Tyr Leu Lys Gly Phe Tyr Glu Gly Ile Met Leu Val Asp
                470                 475                 480
Gly Phe Lys Gly Gln Lys Val Gln Asp Val Lys Lys Thr Ile Gln
                485                 490                 495
Lys Lys Met Ile Asp Ala Gly Asp Ala Leu Ile Tyr Met Glu Pro
                500                 505                 510
Glu Lys Gln Val Met Ser Arg Ser Ser Asp Glu Cys Val Val Ala
                515                 520                 525
Leu Cys Asp Gln Trp Tyr Leu Asp Tyr Gly Glu Glu Asn Trp Lys
                530                 535                 540
Lys Gln Thr Ser Gln Cys Leu Lys Asn Leu Glu Thr Phe Cys Glu
                545                 550                 555
Glu Thr Arg Arg Asn Phe Glu Ala Thr Leu Gly Trp Leu Gln Glu
                560                 565                 570
His Ala Cys Ser Arg Thr Tyr Gly Leu Gly Thr His Leu Pro Trp
                575                 580                 585
Asp Glu Gln Trp Leu Ile Glu Ser Leu Ser Asp Ser Thr Ile Tyr
                590                 595                 600
Met Ala Phe Tyr Thr Val Ala His Leu Leu Gln Gly Gly Asn Leu
                605                 610                 615
His Gly Gln Ala Glu Ser Pro Leu Gly Ile Arg Pro Gln Gln Met
                620                 625                 630
Thr Lys Glu Val Trp Asp Tyr Val Phe Phe Lys Glu Ala Pro Phe
                635                 640                 645
Pro Lys Thr Gln Ile Ala Lys Glu Lys Leu Asp Gln Leu Lys Gln
                650                 655                 660
Glu Phe Glu Phe Trp Tyr Pro Val Asp Leu Arg Val Ser Gly Lys
                665                 670                 675
Asp Leu Val Pro Asn His Leu Ser Tyr Tyr Leu Tyr Asn His Val
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                680                 685                 690
Ala Met Trp Pro Glu Gln Ser Asp Lys Trp Pro Thr Ala Val Arg
                695                 700                 705
Ala Asn Gly His Leu Leu Leu Asn Ser Glu Lys Met Ser Lys Ser
                710                 715                 720
Thr Gly Asn Phe Leu Thr Leu Thr Gln Ala Ile Asp Lys Phe Ser
                725                 730                 735
Ala Asp Gly Met Arg Leu Ala Leu Ala Asp Ala Gly Asp Thr Val
                740                 745                 750
Glu Asp Ala Asn Phe Val Glu Ala Met Ala Asp Ala Gly Ile Leu
                755                 760                 765
Arg Leu Tyr Thr Trp Val Glu Trp Val Lys Glu Met Val Ala Asn
                770                 775                 780
Trp Asp Ser Leu Arg Ser Gly Pro Ala Ser Thr Phe Asn Asp Arg
                785                 790                 795
Val Phe Ala Ser Glu Leu Asn Ala Gly Ile Ile Lys Thr Asp Gln
                800                 805                 810
Asn Tyr Glu Lys Met Met Phe Lys Glu Ala Leu Lys Thr Gly Phe
                815                 820                 825
Phe Glu Phe Gln Ala Ala Lys Asp Lys Tyr Arg Glu Leu Ala Val
                830                 835                 840
Glu Gly Met His Arg Glu Leu Val Phe Arg Phe Ile Glu Val Gln
                845                 850                 855
Thr Leu Leu Leu Ala Pro Phe Cys Pro His Leu Cys Glu His Ile
                860                 865                 870
Trp Thr Leu Leu Gly Lys Pro Asp Ser Ile Met Asn Ala Ser Trp
                875                 880                 885
Pro Val Ala Gly Pro Val Asn Glu Val Leu Ile His Ser Ser Gln
                890                 895                 900
Tyr Leu Met Glu Val Thr His Asp Leu Arg Leu Arg Leu Lys Asn
                905                 910                 915
Tyr Met Met Pro Ala Lys Gly Lys Lys Thr Asp Lys Gln Pro Leu
                920                 925                 930
Gln Lys Pro Ser His Cys Thr Ile Tyr Val Ala Lys Asn Tyr Pro
                935                 940                 945
Pro Trp Gln His Thr Thr Leu Ser Val Leu Arg Lys His Phe Glu
                950                 955                 960
Ala Asn Asn Gly Lys Leu Pro Asp Asn Lys Val Ile Ala Ser Glu
                965                 970                 975
Leu Gly Ser Met Pro Glu Leu Lys Lys Tyr Met Lys Lys Val Met
                980                 985                 990
Pro Phe Val Ala Met Ile Lys Glu Asn Leu Glu Lys Met Gly Pro
                995                1000                1005
Arg Ile Leu Asp Leu Gln Leu Glu Phe Asp Glu Lys Ala Val Leu
               1010                1015                1020
Met Glu Asn Ile Val Tyr Leu Thr Asn Ser Leu Glu Leu Glu His
               1025                1030                1035
Ile Glu Val Lys Phe Ala Ser Glu Ala Glu Asp Lys Ile Arg Glu
               1040                1045                1050
Asp Cys Cys Pro Gly Lys Pro Leu Asn Val Phe Arg Ile Glu Pro
               1055                1060                1065
Gly Val Ser Val Ser Leu Val Asn Pro Gln Pro Ser Asn Gly His
               1070                1075                1080
Phe Ser Thr Lys Ile Glu Ile Arg Gln Gly Asp Asn Cys Asp Ser
               1085                1090                1095
Ile Ile Arg Arg Leu Met Lys Met Asn Arg Gly Ile Lys Asp Leu
               1100                1105                1110
Ser Lys Val Lys Leu Met Arg Phe Asp Asp Pro Leu Leu Gly Pro
               1115                1120                1125
Arg Arg Val Pro Val Leu Gly Lys Glu Tyr Thr Glu Lys Thr Pro
               1130                1135                1140
Ile Ser Glu His Ala Val Phe Asn Val Asp Leu Met Ser Lys Lys
               1145                1150                1155
Ile His Leu Thr Glu Asn Gly Ile Arg Val Asp Ile Gly Asp Thr
               1160                1165                1170
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Ile Ile Tyr Leu Val His
1175

<210> 2
<211> 739
<212> PRT
<213> Homo sapiens

<220>
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<223> Incyte ID No: 2083883CD1

<400> 2
Met Asp Ala Leu Lys Pro Pro Cys Leu Trp Arg Asn His Glu Arg
1 5 10 15
Gly Lys Lys Asp Arg Asp Ser Cys Gly Arg Lys Asn Ser Glu Pro
20 25 30
Gly Ser Pro His Ser Leu Glu Ala Leu Arg Asp Ala Ala Pro Ser
35 40 45
Gln Gly Leu Asn Phe Leu Leu Leu Phe Thr Lys Met Leu Phe Ile
50 55 60
Phe Asn Phe Leu Phe Ser Pro Leu Pro Thr Pro Ala Leu Ile Cys
65 70 75
Ile Leu Thr Phe Gly Ala Ala Ile Phe Leu Trp Leu Ile Thr Arg
80 85 90
Pro Gln Pro Val Leu Pro Leu Leu Asp Leu Asn Asn Gln Ser Val
95 100 105
Gly Ile Glu Gly Gly Ala Arg Lys Gly Val Ser Gln Lys Asn Asn
110 115 120
Asp Leu Thr Ser Cys Cys Phe Ser Asp Ala Lys Thr Met Tyr Glu
125 130 135
Val Phe Gln Arg Gly Leu Ala Val Ser Asp Asn Gly Pro Cys Leu
140 145 150
Gly Tyr Arg Lys Pro Asn Gln Pro Tyr Arg Trp Leu Ser Tyr Lys
155 160 165
Gln Val Ser Asp Arg Ala Glu Tyr Leu Gly Ser Cys Leu Leu His
170 175 180
Lys Gly Tyr Lys Ser Ser Pro Asp Gln Phe Val Gly Ile Phe Ala
185 190 195
Gln Asn Arg Pro Glu Trp Ile Ile Ser Glu Leu Ala Cys Tyr Thr
200 205 210
Tyr Ser Met Val Ala Val Pro Leu Tyr Asp Thr Leu Gly Pro Glu
215 220 225
Ala Ile Val His Ile Val Asn Lys Ala Asp Ile Ala Val Val Ile
230 235 240
Cys Asp Thr Pro Gln Lys Ala Leu Val Leu Ile Gly Asn Val Glu
245 250 255
Lys Gly Phe Thr Pro Ser Leu Lys Val Ile Ile Leu Met Asp Pro
260 265 270
Phe Asp Asp Asp Leu Lys Gln Arg Gly Glu Lys Ser Gly Ile Glu
275 280 285
Ile Leu Ser Leu Tyr Asp Ala Glu Asn Leu Gly Lys Glu His Phe
290 295 300
Arg Lys Pro Val Pro Pro Ser Pro Glu Asp Leu Ser Val Ile Cys
305 310 315
Phe Thr Ser Gly Thr Thr Gly Asp Pro Lys Gly Ala Met Ile Thr
320 325 330
His Gln Asn Ile Val Ser Asn Ala Ala Ala Phe Leu Lys Cys Val
335 340 345
Glu His Ala Tyr Glu Pro Thr Pro Asp Asp Val Ala Ile Ser Tyr
350 355 360
Leu Pro Leu Ala His Met Phe Glu Arg Ile Val Gln Ala Val Val
365 370 375
Tyr Ser Cys Gly Ala Arg Val Gly Phe Phe Gln Gly Asp Ile Arg
380 385 390
Leu Leu Ala Asp Asp Met Lys Thr Leu Lys Pro Thr Leu Phe Pro

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                395                 400                 405
Ala Val Pro Arg Leu Leu Asn Arg Ile Tyr Asp Lys Val Gln Asn
                410                 415                 420
Glu Ala Lys Thr Pro Leu Lys Lys Phe Leu Leu Lys Leu Ala Val
                425                 430                 435
Ser Ser Lys Phe Lys Glu Leu Gln Lys Gly Ile Ile Arg His Asp
                440                 445                 450
Ser Phe Trp Asp Lys Leu Ile Phe Ala Lys Ile Gln Asp Ser Leu
                455                 460                 465
Gly Gly Arg Val Arg Val Ile Val Thr Gly Ala Ala Pro Met Ser
                470                 475                 480
Thr Ser Val Met Thr Phe Phe Arg Ala Ala Met Gly Cys Gln Val
                485                 490                 495
Tyr Glu Ala Tyr Gly Gln Thr Glu Cys Thr Gly Gly Cys Thr Phe
                500                 505                 510
Thr Leu Pro Gly Asp Trp Thr Ser Gly His Val Gly Val Pro Leu
                515                 520                 525
Ala Cys Asn Tyr Val Lys Leu Glu Asp Val Ala Asp Met Asn Tyr
                530                 535                 540
Phe Thr Val Asn Asn Glu Gly Glu Val Cys Ile Lys Gly Thr Asn
                545                 550                 555
Val Phe Lys Gly Tyr Leu Lys Asp Pro Glu Lys Thr Gln Glu Ala
                560                 565                 570
Leu Asp Ser Asp Gly Trp Leu His Thr Gly Asp Ile Gly Arg Trp
                575                 580                 585
Leu Pro Asn Gly Thr Leu Lys Ile Ile Asp Arg Lys Lys Asn Ile
                590                 595                 600
Phe Lys Leu Ala Gln Gly Glu Tyr Ile Ala Pro Glu Lys Ile Glu
                605                 610                 615
Asn Ile Tyr Asn Arg Ser Gln Pro Val Leu Gln Ile Phe Val His
                620                 625                 630
Gly Glu Ser Leu Arg Ser Ser Leu Val Gly Val Val Val Pro Asp
                635                 640                 645
Thr Asp Val Leu Pro Ser Phe Ala Ala Lys Leu Gly Val Lys Gly
                650                 655                 660
Ser Phe Glu Glu Leu Cys Gln Asn Gln Val Val Arg Glu Ala Ile
                665                 670                 675
Leu Glu Asp Leu Gln Lys Ile Gly Lys Glu Ser Gly Leu Lys Thr
                680                 685                 690
Phe Glu Gln Val Lys Ala Ile Phe Leu His Pro Glu Pro Phe Ser
                695                 700                 705
Ile Glu Asn Gly Leu Leu Thr Pro Thr Leu Lys Ala Lys Arg Gly
                710                 715                 720
Glu Leu Ser Lys Tyr Phe Arg Thr Gln Ile Asp Ser Leu Tyr Glu
                725                 730                 735
His Ile Gln Asp

<210> 3
<211> 589
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2454288CD1

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Gly Arg Thr Tyr Thr Asp Glu Glu Phe Asp Glu Leu Cys Phe Glu
                20                  25                  30
Phe Gly Leu Glu Leu Asp Glu Ile Thr Ser Glu Lys Glu Ile Ile
                35                  40                  45
Ser Lys Glu Gln Gly Asn Val Lys Ala Ala Gly Ala Ser Asp Val
                50                  55                  60
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Val Leu Tyr Lys Ile Asp Val Pro Ala Asn Arg Tyr Asp Leu Leu
                65                  70                  75
Cys Leu Glu Gly Leu Val Arg Gly Leu Gln Val Phe Lys Glu Arg
                80                  85                  90
Ile Lys Ala Pro Val Tyr Lys Arg Val Met Pro Asp Gly Lys Ile
                95                 100                 105
Gln Lys Leu Ile Ile Thr Glu Glu Thr Ala Lys Ile Arg Pro Phe
               110                 115                 120
Ala Val Ala Ala Val Leu Arg Asn Ile Lys Phe Thr Lys Asp Arg
               125                 130                 135
Tyr Asp Ser Phe Ile Glu Leu Gln Glu Lys Leu His Gln Asn Ile
               140                 145                 150
Cys Arg Lys Arg Ala Leu Val Ala Ile Gly Thr His Asp Leu Asp
               155                 160                 165
Thr Leu Ser Gly Pro Phe Thr Tyr Thr Ala Lys Arg Pro Ser Asp
               170                 175                 180
Ile Lys Phe Lys Pro Leu Asn Lys Thr Lys Glu Tyr Thr Ala Cys
               185                 190                 195
Glu Leu Met Asn Ile Tyr Lys Thr Asp Asn His Leu Lys His Tyr
               200                 205                 210
Leu His Ile Ile Glu Asn Lys Pro Leu Tyr Pro Val Ile Tyr Asp
               215                 220                 225
Ser Asn Gly Val Val Leu Ser Met Pro Pro Ile Ile Asn Gly Asp
               230                 235                 240
His Ser Arg Ile Thr Val Asn Thr Arg Asn Ile Phe Ile Glu Cys
               245                 250                 255
Thr Gly Thr Asp Phe Thr Lys Ala Lys Ile Val Leu Asp Ile Ile
               260                 265                 270
Val Thr Met Phe Ser Glu Tyr Cys Glu Asn Gln Phe Thr Val Glu
               275                 280                 285
Ala Ala Glu Val Val Phe Pro Asn Gly Lys Ser His Thr Phe Pro
               290                 295                 300
Glu Leu Ala Tyr Arg Lys Glu Met Val Arg Ala Asp Leu Ile Asn
               305                 310                 315
Lys Lys Val Gly Ile Arg Glu Thr Pro Glu Asn Leu Ala Lys Leu
               320                 325                 330
Leu Thr Arg Met Tyr Leu Lys Ser Glu Val Ile Gly Asp Gly Asn
               335                 340                 345
Gln Ile Glu Ile Glu Ile Pro Pro Thr Arg Ala Asp Ile Ile His
               350                 355                 360
Ala Cys Asp Ile Val Glu Asp Ala Ala Ile Ala Tyr Gly Tyr Asn
               365                 370                 375
Asn Ile Gln Met Thr Leu Pro Lys Thr Tyr Thr Ile Ala Asn Gln
               380                 385                 390
Phe Pro Leu Asn Lys Leu Thr Glu Leu Leu Arg His Asp Met Ala
               395                 400                 405
Ala Ala Gly Phe Thr Glu Ala Leu Thr Phe Ala Leu Cys Ser Gln
               410                 415                 420
Glu Asp Ile Ala Asp Lys Leu Gly Val Asp Ile Ser Ala Thr Lys
               425                 430                 435
Ala Val His Ile Ser Asn Pro Lys Thr Ala Glu Phe Gln Val Ala
               440                 445                 450
Arg Thr Thr Leu Leu Pro Gly Leu Leu Lys Thr Ile Ala Ala Asn
               455                 460                 465
Arg Lys Met Pro Leu Pro Leu Lys Leu Phe Glu Ile Ser Asp Ile
               470                 475                 480
Val Ile Lys Asp Ser Asn Thr Asp Val Gly Ala Lys Asn Tyr Arg
               485                 490                 495
His Leu Cys Ala Val Tyr Tyr Asn Lys Asn Pro Gly Phe Glu Ile
               500                 505                 510
Ile His Gly Leu Leu Asp Arg Ile Met Gln Leu Leu Asp Val Pro
               515                 520                 525
Pro Gly Glu Asp Lys Gly Gly Tyr Val Ile Lys Ala Ser Glu Gly
               530                 535                 540
Pro Ala Phe Phe Pro Gly Arg Cys Ala Glu Ile Phe Ala Arg Gly
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                545                 550                 555
Gln Ser Val Gly Lys Leu Gly Val Leu His Pro Asp Val Ile Thr
                560                 565                 570
Lys Phe Glu Leu Thr Met Pro Cys Ser Ser Leu Glu Ile Asn Ile
                575                 580                 585
Gly Pro Phe Leu
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<210> 4
<211> 157
<212> PRT
<213> Homo sapiens

<220>
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<223> Incyte ID No: 1513539CD1

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Met Lys Leu Lys Cys Ile Phe Gly Phe Ala Thr Lys Glu Thr Ser
  1                 5                  10                  15
Cys Tyr Asn Val Thr Asn Ile Gly Phe Lys Ser Pro Ser Asp Phe
                 20                  25                  30
Trp Gln Ser Val His Ser Thr Leu Pro Arg Glu Leu Ala Pro Cys
                 35                  40                  45
Leu Val Phe Asn Thr Ser Pro Asn Leu Ala Leu Phe Ser Ala Ala
                 50                  55                  60
Phe Ala Phe Ile Val Val Lys Asp Ser Ala Gly Asp Ser Asp Val
                 65                  70                  75
Val Val Gln Glu Leu Lys Ser Met Val Ala Thr Lys Ile Ala Lys
                 80                  85                  90
Tyr Ala Val Pro Asp Glu Ile Leu Val Val Lys Arg Leu Pro Lys
                 95                 100                 105
Thr Arg Ser Gly Lys Val Met Arg Arg Leu Leu Arg Lys Ile Ile
                110                 115                 120
Thr Ser Glu Ala Gln Glu Leu Gly Asp Thr Thr Thr Leu Glu Asp
                125                 130                 135
Pro Ser Ile Ile Ala Glu Ile Leu Ser Val Tyr Gln Lys Cys Lys
                140                 145                 150
Asp Lys Gln Ala Ala Ala Lys
                155
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<210> 5
<211> 643
<212> PRT
<213> Homo sapiens

<220>
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<223> Incyte ID No: 2148623CD1

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Met Cys Gly Ile Cys Cys Ser Val Asn Phe Ser Ala Glu His Phe
  1                 5                  10                  15
Ser Gln Asp Leu Lys Glu Asp Leu Leu Tyr Asn Leu Lys Gln Arg
                 20                  25                  30
Gly Pro Asn Ser Ser Lys Gln Leu Leu Lys Ser Asp Val Asn Tyr
                 35                  40                  45
Gln Cys Leu Phe Ser Ala His Val Leu His Leu Arg Gly Val Leu
                 50                  55                  60
Thr Thr Gln Pro Val Glu Asp Glu Arg Gly Asn Val Phe Leu Trp
                 65                  70                  75
Asn Gly Glu Ile Phe Ser Gly Ile Lys Val Glu Ala Glu Glu Asn
                 80                  85                  90
Asp Thr Gln Ile Leu Phe Asn Tyr Leu Ser Ser Cys Lys Asn Glu
                 95                 100                 105
Ser Glu Ile Leu Ser Leu Phe Ser Glu Val Gln Gly Pro Trp Ser
                110                 115                 120
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Phe Ile Tyr Tyr Gln Ala Ser Ser His Tyr Leu Trp Phe Gly Arg
                125                 130                 135
Asp Phe Phe Gly Arg Arg Ser Leu Leu Trp His Phe Ser Asn Leu
            140                 145                 150
Gly Lys Ser Phe Cys Leu Ser Ser Val Gly Thr Gln Thr Ser Gly
        155                 160                 165
Leu Ala Asn Gln Trp Gln Glu Val Pro Ala Ser Gly Leu Phe Arg
    170                 175                 180
Ile Asp Leu Lys Ser Thr Val Ile Ser Arg Cys Ile Ile Leu Gln
185                 190                 195
Leu Tyr Pro Trp Lys Tyr Ile Ser Arg Glu Asn Ile Ile Glu Glu
            200                 205                 210
Asn Val Asn Ser Leu Ser Gln Ile Ser Ala Asp Leu Pro Ala Phe
        215                 220                 225
Val Ser Val Val Ala Asn Glu Ala Lys Leu Tyr Leu Glu Lys Pro
    230                 235                 240
Val Val Pro Leu Asn Met Met Leu Pro Gln Ala Ala Leu Glu Thr
245                 250                 255
His Cys Ser Asn Ile Ser Asn Val Pro Pro Thr Arg Glu Ile Leu
            260                 265                 270
Gln Val Phe Leu Thr Asp Val His Met Lys Glu Val Ile Gln Gln
        275                 280                 285
Phe Ile Asp Val Leu Ser Val Ala Val Lys Lys Arg Val Leu Cys
    290                 295                 300
Leu Pro Arg Asp Glu Asn Leu Thr Ala Asn Glu Val Leu Lys Thr
305                 310                 315
Cys Asp Arg Lys Ala Asn Val Ala Ile Leu Phe Ser Gly Gly Ile
            320                 325                 330
Asp Ser Met Val Ile Ala Thr Leu Ala Asp Arg His Ile Pro Leu
        335                 340                 345
Asp Glu Pro Ile Asp Leu Leu Asn Val Ala Phe Ile Ala Glu Glu
    350                 355                 360
Lys Thr Met Pro Thr Thr Phe Asn Arg Glu Gly Asn Lys Gln Lys
365                 370                 375
Asn Lys Cys Glu Ile Pro Ser Glu Glu Phe Ser Lys Asp Val Ala
            380                 385                 390
Ala Ala Ala Ala Asp Ser Pro Asn Lys His Val Ser Val Pro Asp
        395                 400                 405
Arg Ile Thr Gly Arg Ala Gly Leu Lys Glu Leu Gln Ala Val Ser
    410                 415                 420
Pro Ser Arg Ile Trp Asn Phe Val Glu Ile Asn Val Ser Met Glu
425                 430                 435
Glu Leu Gln Lys Leu Arg Arg Thr Arg Ile Cys His Leu Ile Arg
            440                 445                 450
Pro Leu Asp Thr Val Leu Asp Asp Ser Ile Gly Cys Ala Val Trp
        455                 460                 465
Phe Ala Ser Arg Gly Ile Gly Trp Leu Val Ala Gln Glu Gly Val
    470                 475                 480
Lys Ser Tyr Gln Ser Asn Ala Lys Val Val Leu Thr Gly Ile Gly
485                 490                 495
Ala Asp Glu Gln Leu Ala Gly Tyr Ser Arg His Arg Val Arg Phe
            500                 505                 510
Gln Ser His Gly Leu Glu Gly Leu Asn Lys Glu Ile Met Met Glu
        515                 520                 525
Leu Gly Arg Ile Ser Ser Arg Asn Leu Gly Arg Asp Asp Arg Val
    530                 535                 540
Ile Gly Asp His Gly Lys Glu Ala Arg Phe Pro Phe Leu Asp Glu
545                 550                 555
Asn Val Val Ser Phe Leu Asn Ser Leu Pro Ile Trp Glu Lys Ala
            560                 565                 570
Asn Leu Thr Leu Pro Arg Gly Ile Gly Glu Lys Leu Leu Leu Arg
        575                 580                 585
Leu Ala Ala Val Glu Leu Gly Leu Thr Ala Ser Ala Leu Leu Pro
    590                 595                 600
Lys Arg Ala Met Gln Phe Gly Ser Arg Ile Ala Lys Met Glu Lys
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                605                 610                 615
Ile Asn Glu Lys Ala Ser Asp Lys Cys Gly Arg Leu Gln Ile Met
                620                 625                 630
Ser Leu Glu Asn Leu Ser Ile Glu Lys Glu Thr Lys Leu
                635                 640
<210> 6
<211> 660
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2579405CD1

<400> 6
Met Asp Ile Leu Val Ser Glu Cys Ser Ala Arg Leu Leu Gln Gln
  1               5                  10                  15
Glu Glu Glu Ile Lys Ser Leu Thr Ala Glu Ile Asp Arg Leu Lys
                20                  25                  30
Asn Cys Gly Cys Leu Gly Ala Ser Pro Asn Leu Glu Gln Leu Gln
                35                  40                  45
Glu Glu Asn Leu Lys Leu Lys Tyr Arg Leu Asn Ile Leu Arg Lys
                50                  55                  60
Ser Leu Gln Ala Glu Arg Asn Lys Pro Thr Lys Asn Met Ile Asn
                65                  70                  75
Ile Ile Ser Arg Leu Gln Glu Val Phe Gly His Ala Ile Lys Ala
                80                  85                  90
Ala Tyr Pro Asp Leu Glu Asn Pro Pro Leu Leu Val Thr Pro Ser
                95                 100                 105
Gln Gln Ala Lys Phe Gly Asp Tyr Gln Cys Asn Ser Ala Met Gly
               110                 115                 120
Ile Ser Gln Met Leu Lys Thr Lys Glu Gln Lys Val Asn Pro Arg
               125                 130                 135
Glu Ile Ala Glu Asn Ile Thr Lys His Leu Pro Asp Asn Glu Cys
               140                 145                 150
Ile Glu Lys Val Glu Ile Ala Gly Pro Gly Phe Ile Asn Val His
               155                 160                 165
Leu Arg Lys Asp Phe Val Ser Glu Gln Leu Thr Ser Leu Leu Val
               170                 175                 180
Asn Gly Val Gln Leu Pro Ala Leu Gly Glu Asn Lys Lys Val Ile
               185                 190                 195
Val Asp Phe Ser Ser Pro Asn Ile Ala Lys Glu Met His Val Gly
               200                 205                 210
His Leu Arg Ser Thr Ile Ile Gly Glu Ser Ile Ser Arg Leu Phe
               215                 220                 225
Glu Phe Ala Gly Tyr Asp Val Leu Arg Leu Asn His Val Gly Asp
               230                 235                 240
Trp Gly Thr Gln Phe Gly Met Leu Ile Ala His Leu Gln Asp Lys
               245                 250                 255
Phe Pro Asp Tyr Leu Thr Val Ser Pro Pro Ile Gly Asp Leu Gln
               260                 265                 270
Val Phe Tyr Lys Glu Ser Lys Lys Arg Phe Asp Thr Glu Glu Glu
               275                 280                 285
Phe Lys Lys Arg Ala Tyr Gln Cys Val Val Leu Leu Gln Gly Lys
               290                 295                 300
Asn Pro Asp Ile Thr Lys Ala Trp Lys Leu Ile Cys Asp Val Ser
               305                 310                 315
Arg Gln Glu Leu Asn Lys Ile Tyr Asp Ala Leu Asp Val Ser Leu
               320                 325                 330
Ile Glu Arg Gly Glu Ser Phe Tyr Gln Asp Arg Met Asn Asp Ile
               335                 340                 345
Val Lys Glu Phe Glu Asp Arg Gly Phe Val Gln Val Asp Asp Gly
               350                 355                 360
Arg Lys Ile Val Phe Val Pro Gly Cys Ser Ile Pro Leu Thr Ile
               365                 370                 375
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Val Lys Ser Asp Gly Gly Tyr Thr Tyr Asp Thr Ser Asp Leu Ala
                380                 385                 390
Ala Ile Lys Gln Arg Leu Phe Glu Glu Lys Ala Asp Met Ile Ile
                395                 400                 405
Tyr Val Val Asp Asn Gly Gln Ser Val His Phe Gln Thr Ile Phe
                410                 415                 420
Ala Ala Ala Gln Met Ile Gly Trp Tyr Asp Pro Lys Val Thr Arg
                425                 430                 435
Val Phe His Ala Gly Phe Gly Val Val Leu Gly Glu Asp Lys Lys
                440                 445                 450
Lys Phe Lys Thr Arg Ser Gly Glu Thr Val Arg Leu Met Asp Leu
                455                 460                 465
Leu Gly Glu Gly Leu Lys Arg Ser Met Asp Lys Leu Lys Glu Lys
                470                 475                 480
Glu Arg Asp Lys Val Leu Thr Ala Glu Glu Leu Asn Ala Ala Gln
                485                 490                 495
Thr Ser Val Ala Tyr Gly Cys Ile Lys Tyr Ala Asp Leu Ser His
                500                 505                 510
Asn Arg Leu Asn Asp Tyr Ile Phe Ser Phe Asp Lys Met Leu Asp
                515                 520                 525
Asp Arg Gly Asn Thr Ala Ala Tyr Leu Leu Tyr Ala Phe Thr Arg
                530                 535                 540
Ile Arg Ser Ile Ala Arg Leu Ala Asn Ile Asp Glu Glu Met Leu
                545                 550                 555
Gln Lys Ala Ala Arg Glu Thr Lys Ile Leu Leu Asp His Glu Lys
                560                 565                 570
Glu Trp Lys Leu Gly Arg Cys Ile Leu Arg Phe Pro Glu Ile Leu
                575                 580                 585
Gln Lys Ile Leu Asp Asp Leu Phe Leu His Thr Leu Cys Asp Tyr
                590                 595                 600
Ile Tyr Glu Leu Ala Thr Ala Phe Thr Glu Phe Tyr Asp Ser Cys
                605                 610                 615
Tyr Cys Val Glu Lys Asp Arg Gln Thr Gly Lys Ile Leu Lys Val
                620                 625                 630
Asn Met Trp Arg Met Leu Leu Cys Glu Ala Val Ala Ala Val Met
                635                 640                 645
Ala Lys Gly Phe Asp Ile Leu Gly Ile Lys Pro Val Gln Arg Met
                650                 655                 660
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<210> 7
<211> 725
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2662427CD1

<400> 7

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Met Ala Ala Ala Ser Ala Val Ser Val Leu Leu Val Ala Ala Glu
  1                 5                  10                  15
Arg Asn Arg Trp His Arg Leu Pro Ser Leu Leu Leu Pro Pro Arg
                 20                  25                  30
Thr Trp Val Trp Arg Gln Arg Thr Met Lys Tyr Thr Thr Ala Thr
                 35                  40                  45
Gly Arg Asn Ile Thr Lys Val Leu Ile Ala Asn Arg Gly Glu Ile
                 50                  55                  60
Ala Cys Arg Val Met Arg Thr Ala Lys Lys Leu Gly Val Gln Thr
                 65                  70                  75
Val Ala Val Tyr Ser Glu Ala Asp Arg Asn Ser Met His Val Asp
                 80                  85                  90
Met Ala Asp Glu Ala Tyr Ser Ile Gly Pro Ala Pro Ser Gln Gln
                 95                 100                 105
Ser Tyr Leu Ser Met Glu Lys Ile Ile Gln Val Ala Lys Thr Ser
                110                 115                 120
```

```
Ala Ala Gln Ala Ile His Pro Gly Cys Arg Phe Leu Ser Glu Asn
                125                 130                 135
Met Glu Phe Ala Glu Leu Cys Lys Gln Glu Gly Ile Ile Phe Ile
            140                 145                 150
Gly Pro Pro Pro Ser Ala Ile Arg Asp Met Gly Ile Lys Ser Thr
        155                 160                 165
Ser Lys Ser Ile Met Ala Ala Ala Gly Val Pro Val Val Glu Gly
    170                 175                 180
Tyr His Gly Glu Asp Gln Ser Asp Gln Cys Leu Lys Glu His Ala
185                 190                 195
Arg Arg Ile Gly Tyr Pro Val Met Ile Lys Ala Val Arg Gly Gly
            200                 205                 210
Gly Gly Lys Gly Met Arg Ile Val Arg Ser Glu Gln Glu Phe Gln
        215                 220                 225
Glu Gln Leu Glu Ser Ala Arg Arg Glu Ala Lys Lys Ser Phe Asn
    230                 235                 240
Asp Asp Ala Met Leu Ile Glu Lys Phe Val Asp Thr Pro Arg His
245                 250                 255
Val Glu Val Gln Val Phe Gly Asp His His Gly Asn Ala Val Tyr
            260                 265                 270
Leu Phe Glu Arg Asp Cys Ser Val Gln Arg Arg His Gln Lys Ile
        275                 280                 285
Ile Glu Glu Ala Pro Ala Pro Gly Ile Lys Ser Glu Val Arg Lys
    290                 295                 300
Lys Leu Gly Glu Ala Ala Val Arg Ala Ala Lys Ala Val Asn Tyr
305                 310                 315
Val Gly Ala Gly Thr Val Glu Phe Ile Met Asp Ser Lys His Asn
            320                 325                 330
Phe Cys Phe Met Glu Met Asn Thr Arg Leu Gln Val Glu His Pro
        335                 340                 345
Val Thr Glu Met Ile Thr Gly Thr Asp Leu Val Glu Trp Gln Leu
    350                 355                 360
Arg Ile Ala Ala Gly Glu Lys Ile Pro Leu Ser Gln Glu Glu Ile
365                 370                 375
Thr Leu Gln Gly His Ala Phe Glu Ala Arg Ile Tyr Ala Glu Asp
            380                 385                 390
Pro Ser Asn Asn Phe Met Pro Val Ala Gly Pro Leu Val His Leu
        395                 400                 405
Ser Thr Pro Arg Ala Asp Pro Ser Thr Arg Ile Glu Thr Gly Val
    410                 415                 420
Arg Gln Gly Asp Glu Val Ser Val His Tyr Asp Pro Met Ile Ala
425                 430                 435
Lys Leu Val Val Trp Ala Ala Asp Arg Gln Ala Ala Leu Thr Lys
            440                 445                 450
Leu Arg Tyr Ser Leu Arg Gln Tyr Asn Ile Val Gly Leu Pro Thr
        455                 460                 465
Asn Ile Asp Phe Leu Leu Asn Leu Ser Gly His Pro Glu Phe Glu
    470                 475                 480
Ala Gly Asn Val His Thr Asp Phe Ile Pro Gln His His Lys Gln
485                 490                 495
Leu Leu Leu Ser Arg Lys Ala Ala Ala Lys Glu Ser Leu Cys Gln
            500                 505                 510
Ala Ala Leu Gly Leu Ile Leu Lys Glu Lys Ala Met Thr Asp Thr
        515                 520                 525
Phe Thr Leu Gln Ala His Asp Gln Phe Ser Pro Phe Ser Ser Ser
    530                 535                 540
Ser Gly Arg Arg Leu Asn Ile Ser Tyr Thr Arg Asn Met Thr Leu
545                 550                 555
Lys Asp Gly Lys Asn Asn Val Ala Ile Ala Val Thr Tyr Asn His
            560                 565                 570
Asp Gly Ser Tyr Ser Met Gln Ile Glu Asp Lys Thr Phe Gln Val
        575                 580                 585
Leu Gly Asn Leu Tyr Ser Glu Gly Asp Cys Thr Tyr Leu Lys Cys
    590                 595                 600
Ser Val Asn Gly Val Ala Ser Lys Ala Lys Leu Ile Ile Leu Glu
```

```
                605                 610                 615
Asn Thr Ile Tyr Leu Phe Ser Lys Glu Gly Ser Ile Glu Ile Asp
                620                 625                 630
Ile Pro Val Pro Lys Tyr Leu Ser Ser Val Ser Ser Gln Glu Thr
                635                 640                 645
Gln Gly Gly Pro Leu Ala Pro Met Thr Gly Thr Ile Glu Lys Val
                650                 655                 660
Phe Val Lys Ala Gly Asp Lys Val Lys Ala Gly Asp Ser Leu Met
                665                 670                 675
Val Met Ile Ala Met Lys Met Glu His Thr Ile Lys Ser Pro Lys
                680                 685                 690
Asp Gly Thr Val Lys Lys Val Phe Tyr Arg Glu Gly Ala Gln Ala
                695                 700                 705
Asn Arg His Thr Pro Leu Val Glu Phe Glu Glu Glu Glu Ser Asp
                710                 715                 720
Lys Arg Glu Ser Glu
                725
<210> 8
<211> 644
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2844928CD1

<400> 8
Met Ala Val Tyr Val Gly Met Leu Arg Leu Gly Arg Leu Cys Ala
  1                 5                  10                  15
Gly Ser Ser Gly Val Leu Gly Ala Arg Ala Ala Leu Ser Arg Ser
                 20                  25                  30
Trp Gln Glu Ala Arg Leu Gln Gly Val Arg Phe Leu Ser Ser Arg
                 35                  40                  45
Glu Val Asp Arg Met Val Ser Thr Pro Ile Gly Gly Leu Ser Tyr
                 50                  55                  60
Val Gln Gly Cys Thr Lys Lys His Leu Asn Ser Lys Thr Val Gly
                 65                  70                  75
Gln Cys Leu Glu Thr Thr Ala Gln Arg Val Pro Glu Arg Glu Ala
                 80                  85                  90
Leu Val Val Leu His Glu Asp Val Arg Leu Thr Phe Ala Gln Leu
                 95                 100                 105
Lys Glu Glu Val Asp Lys Ala Ala Ser Gly Leu Leu Ser Ile Gly
                110                 115                 120
Leu Cys Lys Gly Asp Arg Leu Gly Met Trp Gly Pro Asn Ser Tyr
                125                 130                 135
Ala Trp Val Leu Met Gln Leu Ala Thr Ala Gln Ala Gly Ile Ile
                140                 145                 150
Leu Val Ser Val Asn Pro Ala Tyr Gln Ala Met Glu Leu Glu Tyr
                155                 160                 165
Val Leu Lys Lys Val Gly Cys Lys Ala Leu Val Phe Pro Lys Gln
                170                 175                 180
Phe Lys Thr Gln Gln Tyr Tyr Asn Val Leu Lys Gln Ile Cys Pro
                185                 190                 195
Glu Val Glu Asn Ala Gln Pro Gly Ala Leu Lys Ser Gln Arg Leu
                200                 205                 210
Pro Asp Leu Thr Thr Val Ile Ser Val Asp Ala Pro Leu Pro Gly
                215                 220                 225
Thr Leu Leu Leu Asp Glu Val Val Ala Ala Gly Ser Thr Arg Gln
                230                 235                 240
His Leu Asp Gln Leu Gln Tyr Asn Gln Gln Phe Leu Ser Cys His
                245                 250                 255
Asp Pro Ile Asn Ile Gln Phe Thr Ser Gly Thr Thr Gly Ser Pro
                260                 265                 270
Lys Gly Ala Thr Leu Ser His Tyr Asn Ile Val Asn Asn Ser Asn
                275                 280                 285
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```
Ile Leu Gly Glu Arg Leu Lys Leu His Glu Lys Thr Pro Glu Gln
                290                 295                 300
Leu Arg Met Ile Leu Pro Asn Pro Leu Tyr His Cys Leu Gly Ser
            305                 310                 315
Val Ala Gly Thr Met Met Cys Leu Met Tyr Gly Ala Thr Leu Ile
            320                 325                 330
Leu Ala Ser Pro Ile Phe Asn Gly Lys Lys Ala Leu Glu Ala Ile
            335                 340                 345
Ser Arg Glu Arg Gly Thr Phe Leu Tyr Gly Thr Pro Thr Met Phe
            350                 355                 360
Val Asp Ile Leu Asn Gln Pro Asp Phe Ser Ser Tyr Asp Ile Ser
            365                 370                 375
Thr Met Cys Gly Gly Val Ile Ala Gly Ser Pro Ala Pro Pro Glu
            380                 385                 390
Leu Ile Arg Ala Ile Ile Asn Lys Ile Asn Met Lys Asp Leu Val
            395                 400                 405
Val Ala Tyr Gly Thr Thr Glu Asn Ser Pro Val Thr Phe Ala His
            410                 415                 420
Phe Pro Glu Asp Thr Val Glu Gln Lys Ala Glu Ser Val Gly Arg
            425                 430                 435
Ile Met Pro His Thr Glu Ala Arg Ile Met Asn Met Glu Ala Gly
            440                 445                 450
Thr Leu Ala Lys Leu Asn Thr Pro Gly Glu Leu Cys Ile Arg Gly
            455                 460                 465
Tyr Cys Val Met Leu Gly Tyr Trp Gly Glu Pro Gln Lys Thr Glu
            470                 475                 480
Glu Ala Val Asp Gln Asp Lys Trp Tyr Trp Thr Gly Asp Val Ala
            485                 490                 495
Thr Met Asn Glu Gln Gly Phe Cys Lys Ile Val Gly Arg Ser Lys
            500                 505                 510
Asp Met Ile Ile Arg Gly Gly Glu Asn Ile Tyr Pro Ala Glu Leu
            515                 520                 525
Glu Asp Phe Phe His Thr His Pro Lys Val Gln Glu Val Gln Val
            530                 535                 540
Arg His Leu Ala Gln Val Ser Pro Gln Lys Gln Glu Thr His Met
            545                 550                 555
Asn Thr Val Met Ser Asp Ile Phe Leu Trp Pro Trp Asn Val Val
            560                 565                 570
Gly Val Lys Asp Asp Arg Met Gly Glu Glu Ile Cys Ala Cys Ile
            575                 580                 585
Arg Leu Lys Asp Gly Glu Glu Thr Thr Val Glu Glu Ile Lys Ala
            590                 595                 600
Phe Cys Lys Gly Lys Ile Ser His Phe Lys Ile Pro Lys Tyr Ile
            605                 610                 615
Val Phe Val Thr Asn Tyr Pro Leu Thr Ile Ser Gly Lys Ile Gln
            620                 625                 630
Lys Phe Lys Leu Arg Glu Gln Met Glu Arg His Leu Asn Leu
            635                 640

<210> 9
<211> 504
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3231586CD1

<400> 9
Met Phe Pro Arg Glu Lys Thr Trp Asn Ile Ser Phe Ala Gly Cys
  1                 5                  10                  15
Gly Phe Leu Gly Val Tyr Tyr Val Gly Val Ala Ser Cys Leu Arg
             20                  25                  30
Glu His Ala Pro Phe Leu Val Ala Asn Ala Thr His Ile Tyr Gly
             35                  40                  45
Ala Ser Ala Gly Ala Leu Thr Ala Thr Ala Leu Val Thr Gly Val
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                    50                  55                  60
Cys Leu Gly Glu Ala Gly Ala Lys Phe Ile Glu Val Ser Lys Glu
                    65                  70                  75
Ala Arg Lys Arg Phe Leu Gly Pro Leu His Pro Ser Phe Asn Leu
                    80                  85                  90
Val Lys Ile Ile Arg Ser Phe Leu Leu Lys Val Leu Pro Ala Asp
                    95                  100                 105
Ser His Glu His Ala Ser Gly Arg Leu Gly Ile Ser Leu Thr Arg
                    110                 115                 120
Val Ser Asp Gly Glu Asn Val Ile Ile Ser His Phe Asn Ser Lys
                    125                 130                 135
Asp Glu Leu Ile Gln Ala Asn Val Cys Ser Gly Phe Ile Pro Val
                    140                 145                 150
Tyr Cys Gly Leu Ile Pro Pro Ser Leu Gln Gly Val Arg Tyr Val
                    155                 160                 165
Asp Gly Gly Ile Ser Asp Asn Leu Pro Leu Tyr Glu Leu Lys Asn
                    170                 175                 180
Thr Ile Thr Val Ser Pro Phe Ser Gly Glu Ser Asp Ile Cys Pro
                    185                 190                 195
Gln Asp Ser Ser Thr Asn Ile His Glu Leu Arg Val Thr Asn Thr
                    200                 205                 210
Ser Ile Gln Phe Asn Leu Arg Asn Leu Tyr Arg Leu Ser Lys Ala
                    215                 220                 225
Leu Phe Pro Pro Glu Pro Leu Val Leu Arg Glu Met Cys Lys Gln
                    230                 235                 240
Gly Tyr Arg Asp Gly Leu Arg Phe Leu Gln Arg Asn Gly Leu Leu
                    245                 250                 255
Asn Arg Pro Asn Pro Leu Leu Ala Leu Pro Pro Ala Arg Pro His
                    260                 265                 270
Gly Pro Glu Asp Lys Asp Gln Ala Val Glu Ser Ala Gln Ala Glu
                    275                 280                 285
Asp Tyr Ser Gln Leu Pro Gly Glu Asp His Ile Leu Glu His Leu
                    290                 295                 300
Pro Ala Arg Leu Asn Glu Ala Leu Leu Glu Ala Cys Val Glu Pro
                    305                 310                 315
Thr Asp Leu Leu Thr Thr Leu Ser Asn Met Leu Pro Val Arg Leu
                    320                 325                 330
Ala Thr Ala Met Met Val Pro Tyr Thr Leu Pro Leu Glu Ser Ala
                    335                 340                 345
Leu Ser Phe Thr Ile Arg Leu Leu Glu Trp Leu Pro Asp Val Pro
                    350                 355                 360
Glu Asp Ile Arg Trp Met Lys Glu Gln Thr Gly Ser Ile Cys Gln
                    365                 370                 375
Tyr Leu Val Met Arg Ala Lys Arg Lys Leu Gly Arg His Leu Pro
                    380                 385                 390
Ser Arg Leu Pro Glu Gln Val Glu Leu Arg Arg Val Gln Ser Leu
                    395                 400                 405
Pro Ser Val Pro Leu Ser Cys Ala Ala Tyr Arg Glu Ala Leu Pro
                    410                 415                 420
Gly Trp Met Arg Asn Asn Leu Ser Leu Gly Asp Ala Leu Ala Lys
                    425                 430                 435
Trp Glu Glu Cys Gln Arg Gln Leu Leu Leu Gly Leu Phe Cys Thr
                    440                 445                 450
Asn Val Ala Phe Pro Pro Glu Ala Leu Arg Met Arg Ala Pro Ala
                    455                 460                 465
Asp Pro Ala Pro Ala Pro Ala Asp Pro Ala Ser Pro Gln His Gln
                    470                 475                 480
Leu Ala Gly Pro Ala Pro Leu Leu Ser Thr Pro Ala Pro Glu Ala
                    485                 490                 495
Arg Pro Val Ile Gly Ala Leu Gly Leu
                    500
<210> 10
<211> 489
<212> PRT
<213> Homo sapiens
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<220>
<221> misc_feature
<223> Incyte ID No: 3580770CD1

<400> 10

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Met Lys Tyr Ile Leu Val Thr Gly Gly Val Ile Ser Gly Ile Gly
  1               5                  10                  15
Lys Gly Ile Ile Ala Ser Ser Ile Gly Thr Ile Leu Lys Ser Cys
             20                  25                  30
Gly Leu Arg Val Thr Ala Ile Lys Ile Asp Pro Tyr Ile Asn Ile
             35                  40                  45
Asp Ala Gly Thr Phe Ser Pro Tyr Glu His Gly Glu Val Phe Val
             50                  55                  60
Leu Asn Asp Gly Gly Glu Val Asp Leu Asp Leu Gly Asp Tyr Glu
             65                  70                  75
Arg Phe Leu Asp Ile Asn Leu Tyr Lys Asp Thr Ile Val Thr Thr
             80                  85                  90
Gly Lys Ile Tyr Gln His Val Ile Asn Lys Glu Arg Arg Gly Asp
             95                 100                 105
Tyr Leu Gly Lys Thr Val Gln Val Val Pro His Ile Thr Asp Ala
            110                 115                 120
Val Gln Glu Trp Val Met Asn Gln Ala Lys Val Pro Val Asp Gly
            125                 130                 135
Asn Lys Glu Glu Pro Gln Ile Cys Val Ile Glu Leu Gly Gly Thr
            140                 145                 150
Ile Gly Asp Ile Glu Gly Met Pro Phe Val Glu Ala Phe Arg Gln
            155                 160                 165
Phe Gln Phe Lys Ala Lys Arg Glu Asn Phe Cys Asn Ile His Val
            170                 175                 180
Ser Leu Val Pro Gln Leu Ser Ala Thr Gly Glu Gln Lys Thr Lys
            185                 190                 195
Pro Thr Gln Asn Ser Val Arg Ala Leu Arg Gly Leu Gly Leu Ser
            200                 205                 210
Pro Asp Leu Ile Val Cys Arg Ser Ser Thr Pro Ile Glu Met Ala
            215                 220                 225
Val Lys Glu Lys Ile Ser Met Phe Cys His Val Asn Pro Glu Gln
            230                 235                 240
Val Ile Cys Ile His Asp Val Ser Ser Thr Tyr Arg Val Pro Val
            245                 250                 255
Leu Leu Glu Glu Gln Ser Ile Val Lys Tyr Phe Lys Glu Arg Leu
            260                 265                 270
His Leu Pro Ile Gly Asp Ser Ala Ser Asn Leu Leu Phe Lys Trp
            275                 280                 285
Arg Asn Met Ala Asp Arg Tyr Glu Arg Leu Gln Lys Ile Cys Ser
            290                 295                 300
Ile Ala Leu Val Gly Lys Tyr Thr Lys Leu Arg Asp Cys Tyr Ala
            305                 310                 315
Ser Val Phe Lys Ala Leu Glu His Ser Ala Leu Ala Ile Asn His
            320                 325                 330
Lys Leu Asn Leu Met Val Ile Asp Met Pro Glu His Asn Pro Gly
            335                 340                 345
Asn Leu Gly Gly Thr Met Arg Leu Gly Ile Arg Arg Thr Val Phe
            350                 355                 360
Lys Thr Glu Asn Ser Ile Leu Arg Lys Leu Tyr Gly Asp Val Pro
            365                 370                 375
Phe Ile Glu Glu Arg His Arg His Arg Phe Glu Val Asn Pro Asn
            380                 385                 390
Leu Ile Lys Gln Phe Glu Gln Asn Asp Leu Ser Phe Val Gly Gln
            395                 400                 405
Asp Val Asp Gly Asp Arg Met Glu Ile Ile Glu Leu Ala Asn His
            410                 415                 420
Pro Tyr Phe Val Gly Val Gln Phe His Pro Glu Phe Ser Ser Arg
            425                 430                 435
Pro Met Lys Pro Ser Pro Pro Tyr Leu Gly Leu Leu Leu Ala Ala
            440                 445                 450
```

Thr Gly Asn Leu Asn Ala Tyr Leu Gln Gln Gly Cys Lys Leu Ser
455 460 465
Ser Ser Asp Arg Tyr Ser Asp Ala Ser Asp Asp Ser Phe Ser Glu
470 475 480
Pro Arg Ile Ala Glu Leu Glu Ile Ser
485

<210> 11
<211> 258
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3778612CD1

<400> 11
Met Glu Arg Gln Lys Arg Lys Ala Asp Ile Glu Lys Gly Leu Gln
1 5 10 15
Phe Ile Gln Ser Thr Leu Pro Leu Lys Gln Glu Glu Tyr Glu Ala
20 25 30
Phe Leu Leu Lys Leu Val Gln Asn Leu Phe Ala Glu Gly Asn Asp
35 40 45
Leu Phe Arg Glu Lys Asp Tyr Lys Gln Ala Leu Val Gln Tyr Met
50 55 60
Glu Gly Leu Asn Val Ala Asp Tyr Ala Ala Ser Asp Gln Val Ala
65 70 75
Leu Pro Arg Glu Leu Leu Cys Lys Leu His Val Asn Arg Ala Ala
80 85 90
Cys Tyr Phe Thr Met Gly Leu Tyr Glu Lys Ala Leu Glu Asp Ser
95 100 105
Glu Lys Ala Leu Gly Pro Asp Ser Glu Ser Ile Arg Ala Leu Phe
110 115 120
Arg Lys Ala Arg Ala Leu Asn Glu Leu Gly Arg His Lys Glu Ala
125 130 135
Tyr Glu Cys Ser Ser Arg Cys Ser Leu Ala Leu Pro His Asp Glu
140 145 150
Ser Val Thr Gln Leu Gly Gln Gly Pro Leu Gly Ser Gly Ala Ser
155 160 165
Trp Pro Gly Gln Ser Trp Ser Pro His Arg Val Arg Lys Arg Glu
170 175 180
Trp Glu Ala Glu Cys Asp Gly Glu Glu Gly Gln Glu Asp Pro Phe
185 190 195
Asn Asp Glu Gly Asn Tyr Phe Ser Cys Glu Pro Ser Arg Ala Pro
200 205 210
Gly Trp Glu Ala Gln Arg Thr Glu Ser Gly Thr Cys Val Pro Pro
215 220 225
Gly Arg Gln Gly Gln Asp Gly Met Ala Ser Met Gly Ala Gly Trp
230 235 240
Val Gly Arg Asp Ala Ala Phe Leu Ser Trp Ala Val Ile Asn Leu
245 250 255
Met Val Leu

<210> 12
<211> 555
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 4574912CD1

<220>
<221> unsure
<222> 63-65
<223> unknown or other

<400> 12

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Met Glu Gly Ala Val Leu Glu Ala Gly Gly Ala Arg Cys Phe Cys
  1               5                  10                  15
Arg Phe Gly Cys Glu Leu Ser Lys Tyr Glu Asn Pro Gly Tyr Ser
             20                  25                  30
Ser Pro Arg Ser Asp Tyr Phe Lys Asn Tyr Met Ile Ile Ile Thr
         35                  40                  45
Gln Asn Arg Met Ser Phe Leu Ala Asn Met Phe His Thr Met Asp
     50                  55                  60
Cys Val Xaa Xaa Xaa Arg Tyr Ser Cys Gly Pro Thr Val Tyr Asp
 65                  70                  75
His Ala His Leu Gly His Ala Cys Ser Tyr Val Arg Phe Asp Ile
             80                  85                  90
Ile Arg Arg Ile Leu Thr Lys Val Phe Gly Cys Ser Ile Val Met
         95                 100                 105
Val Met Gly Ile Thr Asp Val Asp Asp Lys Ile Ile Lys Arg Ala
    110                 115                 120
Asn Glu Met Asn Ile Ser Pro Ala Ser Leu Ala Ser Leu Tyr Glu
    125                 130                 135
Glu Asp Phe Lys Gln Asp Met Ala Ala Leu Lys Val Leu Pro Pro
    140                 145                 150
Thr Val Tyr Leu Arg Val Thr Glu Asn Ile Pro Gln Ile Ile Ser
    155                 160                 165
Phe Ile Glu Gly Ile Ile Ala Arg Gly Asn Ala Tyr Ser Thr Ala
    170                 175                 180
Lys Gly Asn Val Tyr Phe Asp Leu Lys Ser Arg Gly Asp Lys Tyr
    185                 190                 195
Gly Lys Leu Val Gly Val Val Pro Gly Pro Val Gly Glu Pro Ala
    200                 205                 210
Asp Ser Asp Lys Arg His Ala Ser Asp Phe Ala Leu Trp Lys Ala
    215                 220                 225
Ala Lys Pro Gln Glu Val Phe Trp Ala Ser Pro Trp Gly Pro Gly
    230                 235                 240
Arg Pro Gly Trp His Ile Glu Cys Ser Ala Ile Ala Ser Met Val
    245                 250                 255
Phe Gly Ser Gln Leu Asp Ile His Ser Gly Gly Ile Asp Leu Ala
    260                 265                 270
Phe Pro His His Glu Asn Glu Ile Ala Gln Cys Glu Val Phe His
    275                 280                 285
Gln Cys Glu Gln Trp Gly Asn Tyr Phe Leu His Ser Gly His Leu
    290                 295                 300
His Ala Lys Gly Lys Glu Glu Lys Met Ser Lys Ser Leu Lys Asn
    305                 310                 315
Tyr Ile Thr Ile Lys Asp Phe Leu Lys Thr Phe Ser Pro Asp Val
    320                 325                 330
Phe Arg Phe Phe Cys Leu Arg Ser Ser Tyr Arg Ser Ala Ile Asp
    335                 340                 345
Tyr Ser Asp Ser Ala Met Leu Gln Ala Gln Gln Leu Leu Leu Gly
    350                 355                 360
Leu Gly Ser Phe Leu Glu Asp Ala Arg Ala Tyr Met Lys Gly Gln
    365                 370                 375
Leu Ala Cys Gly Ser Val Arg Glu Ala Met Leu Trp Glu Arg Leu
    380                 385                 390
Ser Ser Thr Lys Arg Ala Val Lys Ala Ala Leu Ala Asp Asp Phe
    395                 400                 405
Asp Thr Pro Arg Val Val Asp Ala Ile Leu Gly Leu Ala His His
    410                 415                 420
Gly Asn Gly Gln Leu Arg Ala Ser Leu Lys Glu Pro Glu Gly Pro
    425                 430                 435
Arg Ser Pro Ala Val Phe Gly Ala Ile Ile Ser Tyr Phe Glu Gln
    440                 445                 450
Phe Phe Glu Thr Val Gly Ile Ser Leu Ala Asn Gln Gln Tyr Val
    455                 460                 465
Ser Gly Asp Gly Ser Glu Ala Thr Leu His Gly Val Val Asp Glu
    470                 475                 480
```

```
Leu Val Arg Phe Arg Gln Lys Val Arg Gln Phe Ala Leu Ala Met
                485                 490                 495
Pro Glu Ala Thr Gly Asp Ala Arg Arg Gln Gln Leu Leu Glu Arg
                500                 505                 510
Gln Pro Leu Leu Glu Ala Cys Asp Thr Leu Arg Arg Gly Leu Thr
                515                 520                 525
Ala His Gly Ile Asn Ile Lys Asp Arg Ser Ser Thr Thr Ser Thr
                530                 535                 540
Trp Glu Leu Leu Asp Gln Arg Thr Lys Asp Gln Lys Ser Ala Gly
                545                 550                 555

<210> 13
<211> 463
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 5630806CD1

<400> 13
Met Ala Ala Ser Met Phe Tyr Gly Arg Leu Val Ala Val Ala Thr
  1                 5                  10                  15
Leu Arg Asn His Arg Pro Arg Thr Ala Gln Arg Ala Ala Ala Gln
                 20                  25                  30
Val Leu Gly Ser Ser Gly Leu Phe Asn Asn His Gly Leu Gln Val
                 35                  40                  45
Gln Gln Gln Gln Gln Arg Asn Leu Ser Leu His Glu Tyr Met Ser
                 50                  55                  60
Met Glu Leu Leu Gln Glu Ala Gly Val Ser Val Pro Lys Gly Tyr
                 65                  70                  75
Val Ala Lys Ser Pro Asp Glu Ala Tyr Ala Ile Ala Lys Lys Leu
                 80                  85                  90
Gly Ser Lys Asp Val Val Ile Lys Ala Gln Val Leu Ala Gly Gly
                 95                 100                 105
Arg Gly Lys Gly Thr Phe Glu Ser Gly Leu Lys Gly Gly Val Lys
                110                 115                 120
Ile Val Phe Ser Pro Glu Glu Ala Lys Ala Val Ser Ser Gln Met
                125                 130                 135
Ile Gly Lys Lys Leu Phe Thr Lys Gln Thr Gly Glu Lys Gly Arg
                140                 145                 150
Ile Cys Asn Gln Val Leu Val Cys Glu Arg Lys Tyr Pro Arg Arg
                155                 160                 165
Glu Tyr Tyr Phe Ala Ile Thr Met Glu Arg Ser Phe Gln Gly Pro
                170                 175                 180
Val Leu Ile Gly Ser Ser His Gly Gly Val Asn Ile Glu Asp Val
                185                 190                 195
Ala Ala Glu Thr Pro Glu Ala Ile Ile Lys Glu Pro Ile Asp Ile
                200                 205                 210
Glu Glu Gly Ile Lys Lys Glu Gln Ala Leu Gln Leu Ala Gln Lys
                215                 220                 225
Met Gly Phe Pro Pro Asn Ile Val Glu Ser Ala Ala Glu Asn Met
                230                 235                 240
Val Lys Leu Tyr Ser Leu Phe Leu Lys Tyr Asp Ala Thr Met Ile
                245                 250                 255
Glu Ile Asn Pro Met Val Glu Asp Ser Asp Gly Ala Val Leu Cys
                260                 265                 270
Met Asp Ala Lys Ile Asn Phe Asp Ser Asn Ser Ala Tyr Arg Gln
                275                 280                 285
Lys Lys Ile Phe Asp Leu Gln Asp Trp Thr Gln Glu Asp Glu Arg
                290                 295                 300
Asp Lys Asp Ala Ala Lys Ala Asn Leu Asn Tyr Ile Gly Leu Asp
                305                 310                 315
Gly Asn Ile Gly Cys Leu Val Asn Gly Ala Gly Leu Ala Met Ala
                320                 325                 330
```

```
Thr Met Asp Ile Ile Lys Leu His Gly Gly Thr Pro Ala Asn Phe
                335                 340                 345
Leu Asp Val Gly Gly Gly Ala Thr Val His Gln Val Thr Glu Ala
                350                 355                 360
Phe Lys Leu Ile Thr Ser Asp Lys Lys Val Leu Ala Ile Leu Val
                365                 370                 375
Asn Ile Phe Gly Gly Ile Met Arg Cys Asp Val Ile Ala Gln Gly
                380                 385                 390
Ile Val Met Ala Val Lys Asp Leu Glu Ile Lys Ile Pro Val Val
                395                 400                 405
Val Arg Leu Gln Gly Thr Arg Val Asp Asp Ala Lys Ala Leu Ile
                410                 415                 420
Ala Asp Ser Gly Leu Lys Ile Leu Ala Cys Asp Asp Leu Asp Glu
                425                 430                 435
Ala Ala Arg Met Val Val Lys Leu Ser Glu Ile Val Thr Leu Ala
                440                 445                 450
Lys Gln Ala His Val Asp Val Lys Phe Gln Leu Pro Ile
                455                 460
<210> 14
<211> 399
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 5854855CD1

<400> 14
Met Tyr Phe Gly Ala Val Ser Trp Leu Cys Gly Pro Arg Ala Pro
  1                 5                  10                  15
Asp Glu Val Ser Arg Arg Pro Asp Pro Arg Lys Gly Gln Leu Gly
                 20                  25                  30
Val Ala Phe Val Leu Leu Pro Pro His Ser Glu Gly Ala Arg Val
                 35                  40                  45
Phe Gly Ala Leu Gly Pro Ile Gly Pro Ser Ser Pro Gly Leu Thr
                 50                  55                  60
Leu Gly Gly Leu Ala Val Ser Glu His Arg Leu Ser Asn Lys Leu
                 65                  70                  75
Leu Ala Trp Ser Gly Val Leu Glu Trp Gln Glu Lys Arg Arg Pro
                 80                  85                  90
Tyr Ser Asp Ser Thr Ala Lys Leu Lys Arg Thr Leu Pro Cys Gln
                 95                 100                 105
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Gln Lys Leu Ile Met Gln Leu Ile Pro Gln Gln Leu Leu Thr Thr
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Leu Gly Pro Leu Phe Arg Asn Ser Gln Leu Ala Gln Phe His Phe
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Thr Asn Arg Asp Cys Asp Ser Leu Lys Gly Leu Cys Arg Ile Met
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Gly Asn Gly Phe Ala Gly Cys Met Leu Phe Pro His Ile Ser Pro
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Cys Glu Val Arg Val Leu Met Leu Leu Tyr Ser Ser Lys Lys Lys
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Ile Phe Met Gly Leu Ile Pro Tyr Asp Gln Ser Gly Phe Val Ser
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Ala Ile Arg Gln Val Ile Thr Thr Arg Lys Gln Ala Val Gly Pro
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Leu Ala Trp Ser Gly Val Met Glu Trp Gln Glu Pro Arg Pro Glu
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Leu Glu Thr Leu Lys Ser Leu Cys Arg Ile Met Asp Asn Gly Phe
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Ala Gly Cys Val His Phe Ser Tyr Lys Ala Ser Cys Glu Ile Arg
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Val Leu Met Leu Leu Tyr Ser Ser Glu Lys Lys Ile Phe Ile Gly
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Gly Arg Leu Leu Leu Arg Val Leu His Val Ser Glu Asn Pro Val
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Pro Leu Thr Val Arg Val Ser Pro Glu Val Arg Asp Val Arg Pro
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<213> Homo sapiens

<220>
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<211> 1937
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<220>
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<212> DNA
<213> Homo sapiens

<220>
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<223> Incyte ID No: 3778612CB1

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<211> 1810
<212> DNA
<213> Homo sapiens

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<223> Incyte ID No: 4574912CB1

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<221> unsure
<222> 193, 196-198
<223> a, t, c, g, or other

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<211> 2162
<212> DNA
<213> Homo sapiens

<220>
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<210> 29
<211> 1477
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 5854855CB1

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<210> 30
<211> 1660
<212> DNA
<213> Homo sapiens

<220>
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